M30197US(L)
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Patent claims

1. Stator component for an inner rotor motor consisting of a ring-shaped stator yoke and a number of pole shoes which protrude inwards from the central, inner opening of the stator yoke, c h a r a c t e r i z e d in that the stator component is subdivided into several stator sections, with each stator section encompassing all the pole shoes of one phase.

2. Stator component according to claim 1, c h a r a c t e r i z e d in that each stator section encompasses a part of the ring-shaped yoke.

3. Stator component according to claim 1, c h a r a c t e r i z e d in that the stator component is concentric to a motor axis and the pole shoes of each stator section extend along substantially the entire axial length of the stator component.

4. Stator component according to claim 3, c h a r a c t e r i z e d in that each stator section encompasses part of the ring-shaped yoke which extends over part of the axial length of the stator component.

5. Stator component according to claim 4, c h a r a c t e r i z e d in that each part of the ring-shaped stator yoke is a closed ring extending over N x axial length of the stator component, where N = 1/(number of phases).

6. Stator component according to claim 1, c h a r a c t e r i z e d in that each stator section is composed of several components, a component being formed by a closed ring and part of the pole shoes belonging to one phase which extend over N x axial length of the stator component, the other component consisting of the rest of the pole shoes belonging to said one phase which extend over N x (number of phases - 1) x axial length of the stator component, where N = 1/(number of phases).

7. Stator component according to claim 6, c h a r a c t e r i z e d in that the several components are bonded.

8. Stator component according to claim 1, c h a r a c t e r i z e d in that the stator sections are interleaved with each other, the pole shoes of the respective stator sections being offset at an angle to each other.

9. Electrical motor including a stator component for an inner rotor motor consisting of a ring-shaped stator yoke and a number of pole shoes which protrude inwards from the central, inner opening of the stator yoke, c h a r a c t e r i z e d in that the stator component is subdivided into several stator sections, with each stator section encompassing all the pole shoes of one phase.

10. Method for manufacturing a stator component according to claim 1, where a first and at least one second component are provided for each phase, the first component being formed by a closed ring and part of the pole shoes belonging to one phase which extend over N x axial length of the stator component, the other component consisting of the rest of the pole shoes belonging to said one phase which extend over N x (number of phases - 1) x axial length of the stator component, where N = 1/(number of phases), and where the first and the at least one second component are united.

11. Method according to claim 10, c h a r a c t e r i z e d in that the first and said at least one second component are united by packaging or bonding.

12. Method according to claim 10, where a stator section is created for each phase and the stator section pole shoes are wired before the individual stator sections are bonded to form the wired stator.

13. Method according to claim 12, c h a r a c t e r i z e d in that the phase windings are formed through the application of pressure after winding the pole shoes.